

Application Serial No. 10/578,964
Docket No. 1093-155 PCT/US
Response to June 25, 2007
Non-Final Office Action

REMARKS

The Non-Final Office Action mailed June 25, 2007 and the references cited therein have been carefully considered. Claims 1-9 are pending in the application, including independent Claim 1. Applicant has not amended any of the claims in the present response. Applicant responds specifically below to the issues raised in the subject Office Action and the issues discussed in the telephone interview of August 1, 2007. An Applicant's Initiated Interview Summary is filed herewith.

In the Office Action, each of Claims 1, 3, 5 and 9 were rejected under 35 U.S.C. 103(a) as being obvious over published PCT Application No. PCT/DE03/01042 to Mitsam (hereinafter "Mitsam", see U.S. Patent Application No. US2006/0108071A1 to Mitsam, which is an English language equivalent thereof) in view of U.S. Patent No. 6,007,320 to Froese et al. (hereinafter "Froese").

The Examiner has relied upon Mitsam, for teaching all the elements of the rejected claims, with the exception of following:

- a sliding surface in the tangential plane connecting the two support rollers;
- a sliding belt passing around the two support rollers with the embossing belt being provided at the outside of the sliding belt, which is remote from the support rollers;
- a sliding belt being tensioned around the two support rollers; and

- a support body provided with a heating device.

The Examiner combines Mitsam with Froese to reject the claims under 35 U.S.C. 103(a), and relies on Froese for teaching the above noted missing limitations.

Thus, the Examiner concedes that Mitsam does not teach “a sliding surface in the tangential plane connecting the two support rollers,” as recited in Claim 1; however, Froese also does not teach a sliding surface so configured. The heated press platens 4, 6 in Froese are intentionally disposed at an angle relative to the plane connecting the two support rollers, as it is their function (as indicated by their name) to “press” the wood boards as they pass through the apparatus. If the sliding surface of the press platens 4, 6 were disposed substantially in the tangential plane connecting the two support rollers, the lead roller 14 would act as the press rather than the platens. Thus, while Froese may have a sliding surface, there is no teaching, motivation or suggestion to place that surface in the claimed configuration.

Applicant respectfully suggests that the Examiner has used improper hindsight to combine the press platens disclosed in Froese with the embossing station taught by Mitsam in order to arrive at the claimed invention. The Examiner’s only reason for adding a sliding surface to Mitsam is “to control the movement of the belt between rollers;” however, Froese does not teach using a sliding surface to control movement of the belt. Accordingly, there is no motivation, teaching or suggestion in the prior art to replace the Mitsam embossing device’s stabilization rollers 28 with a sliding surface.

In fact, to one of ordinary skill at the time the subject invention was made, a sliding surface as taught by Froese would add further complications to the embossing device taught by Mitsam. In particular, the sliding surface in place of rollers would generate friction against the embossing belt. Such an undesirable effect would teach one of ordinary skill in the art not to add a sliding surface to the Mitsam device. Evidence of this unfavorable complication is demonstrated by the fact that in order to minimize the added friction, Froese employs an additional inner steel belt assembly 9. It would have been generally understood to one of ordinary skill in the art that adding an entire new inner belt subassembly would complicate the machine, increase assembly costs and maintenance. Thus, the prior art and particularly Froese teaches away from adding a sliding surface, as well as the inner sliding belt, as defined by the claims.

Further, the Examiner concedes that Mitsam does not teach “a sliding belt being tensioned around the two support rollers,” as recited in Claim 5. Froese also does not teach a tensioned sliding belt. While Froese discloses the use of a tensioning assembly 17, it is used on the outer belt 10, rather than the inner sliding belt 7. Thus, Froese simply does not teach or suggest a tensioned sliding belt as claimed. In fact, it would have been understood to one of ordinary skill in the art that adding a tensioning device to the Froese sliding belt would further increase the friction between the sliding belt 7 and the press platens 4, 6. Tightening the sliding belt would press it further against the sliding surface. An additional increase in friction would motivate a practitioner in the art not to add such a feature to the sliding belt. Also, a sliding belt

tensioning assembly adds an additional subassembly to Mitsam, presumably necessitated by the addition of the sliding surface. Thus, further teaching away from combining these references as suggested by the Examiner.

Further still, Froese is a thermal press type device that needs heat to set the material being processed. In a thermal press environment, it is more efficient to add heat in direct proximity to the resin or material being set. This same motivation does not apply to an embossing station as recited by the claims. Such an addition to Mitsam would get in the way of the existing support rollers 28. Also, Mitsam does not need such an addition as it already includes two heating devices 24. By disposing the heating devices 24 remote from the support structure area, Mitsam is able to heat longer stretches of the embossing belt without directly heating the product. The Examiner mentions that a heating device is desirable to facilitate forming the transfer layer, as taught by Froese. However, it is unclear why Mitsam would need an additional heater. The Examiner has failed to demonstrate why one of ordinary skill would add or substitute the sliding surface heating device of Froese in an embossing device, such as that of Mitsam.

Also, in the Office Action, Claims 2 and 4 are rejected under 35 U.S.C. §103(a) as being obvious in view of Mitsam and Froese as addressed above, and further in view of U.S. Patent No. 3,917,774 to Sagane et al. (Sagane). The Examiner indicates that Sagane teaches the use of low friction surfaces by applying lubricants. Sagane teaches reducing the friction on steel belts by applying lubricants similar to those used in bearings. However, such lubricants do not work in the context of an embossing device as claimed. Lubricants such as those used in bearings are

particularly messy and are difficult and sometime impossible to remove from an an embossed element.

Further still, in the Office Action, Claims 6-8 are rejected under 35 U.S.C. §103(a) as being obvious in view of Mitsam and Froese as addressed above, and further in view of U.S. Patent No. 5,458,477 to Kemerer et al. (Kemerer). The Examiner indicates that Kemerer teaches the use of a support body having a gas permeable porous flat element by which the sliding surface is formed. The Examiner indicates that the plurality of air-bearing holes 60 of Kemerer has the same functional effect as a porous material. However, the Examiner fails to explain how the further limitations of claim 8 read on the disclosure of Kemerer. In particular, the gas-permeable porous flat element including two laterally oppositely disposed side surfaces as more fully recited in the claim. Those elements are simply not taught or suggested by Kemerer. Kemerer does not disclose one laterally disposed side surface, let alone two that are oppositely disposed. It should be noted that Fig. 6 in Kemerer does not illustrate any such laterally disposed side surfaces, but rather shows upper platen 4 and lower platen 6 relative to the press board 2. No laterally disposed side surfaces are disclosed as particularly recited by Claim 8 of the instant invention.

Finally, it is noted that the Examiner has generally characterized Froese, Sagane and Kemerer as “analogous art” thereby acknowledging that these references are not directed to an embossing station as set forth in the rejected claims. In contrast, these references are directed to apparatus for producing pressed wood boards. Thus, Applicant traverses this characterization as

apparatus for pressing wood boards is not only in a different field from embossing devices, but it also employs different structure (i.e., the sliding surface) for a different purpose (i.e., significantly compressing the material passing therethrough) under different pressure conditions. The Federal Circuit has held that such differences are evidence of “non-analogy” between prior art references. *In re Clay*, 966 F.2d 656, 659, 23 U.S.P.Q.2d 1058, 1061 (Fed. Cir. 1992). In fact, all of the prior art references combined by the Examiner with *Mitsam* are thermal press type devices that need heat for the production of pressed boards and elongated resin articles. Such thermal press type devices are absolutely different from flat elements embossed with an embossing film as claimed. Further evidence of “non-analogy” is demonstrated by the fact that none of the Patent Office classifications listed for the cited thermal press type devices overlap with the classifications for *Mitsam*. It is well settled that the Patent Office classification of references is further evidence of non-analogy. *In re Ellis*, 476 F.2d 1370, 1372, 177 U.S.P.Q. 526, 527 (CCPA 1973). As such, it has not been demonstrated that one of ordinary skill in the embossing arts would have known or been motivated to combine an embossing assembly with elements of a thermal resin press to arrive at the claimed invention. Accordingly, Applicant respectfully traverses the Examiner’s objections combining non-analogous references.

In view of the foregoing, Applicant respectfully traverses each of the rejections of the claims. The present invention has been used as a roadmap to pick through the prior art and combine non-analogous references which persons of ordinary skill in the art would not have been motivated to combine. Notwithstanding the above, even if one were to combine the cited prior

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art, such a combination does not teach or suggest the claimed structure. Accordingly,
reconsideration and allowance are respectfully solicited.

If the Examiner has any questions or suggestions of possible amendment for allowance,
he is cordially invited to contact Applicant's attorney at the telephone number provided.

Respectfully submitted,

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